Developments in the Natural Gas and Oil Markets

Market Intelligence Branch
Division of Market Oversight
April 17, 2019
Staff compiled public source evaluations of LNG’s impact on the global marketplace.

Intention was to assess the fundamental factors driving changes in LNG markets and subsequently, NG derivatives.
Conclusions

• U.S. LNG exports have most rapid growth rate, price advantage in a growing global marketplace
  – U.S. export capacity expected to double in 2019
  – EIA forecasts exports to top 14 Bcf/d by 2020, 28 Bcf/d by 2050
• LNG export growth may put upward pressure on domestic natural gas prices
  – Estimates of impact have been trending downward
• Changes in LNG markets may drive increased participation in derivatives markets
Tight Oil’s Impact on NYMEX WTI Futures - Summary

• Across all expirations, Volume and Open Interest remain robust
• NYMEX WTI Open Interest 5+ years out has declined
• Confluence of factors
  – Primarily due to increased production from U.S. shale oil
  – Secondary effects from price levels, regulation
• Why this matters: Weak long-dated futures liquidity may interfere with WTI’s price discovery function over time
Estimated U.S. Tight Oil Production Accounts for Roughly 63% of Total U.S. Production in Feb. 2019

Source: U.S. Energy Information Administration
Steady Increase in NYMEX WTI Futures Volume

Daily Volume, All Months

Source: NYMEX Permanent Record Data
Open Interest also Increasing, but Concentrating

Source: NYMEX Permanent Record Data
Open Interest Five Years Forward is Drying Up

Source: NYMEX Permanent Record Data
The Decline in Long-Dated OI may be Unrelated to Prices

Five-Year Forward Open Interest vs. Prompt, Five-Year December Price

- Open Interest
- Prompt WTI Price
- Five-Year Dec Price

U.S. Shale Oil boom started in 2008

Source: NYMEX Permanent Record Data
Long-Dated Brent OI Reflects Historical Trends

Five-Year Forward Open Interest vs. Prompt, Five-Year December Price

Source: ICE Futures Europe Data
While All Market Participants are Still Active, Producers have Largely Exited the Market

Net Futures Position, Five-Year Forward NYMEX WTI by DCoT Classifications

Source: CFTC Part 17, Form 40 Data
Conclusion: Tight Oil’s Development Altered Long-Dated Liquidity

- Short production horizon reduced need for long-dated contracts
- Less speculative interest in long end due to abundant oil supply
- Long term questions:
  - Does the lack of long-dated liquidity impair WTI’s ability to act as a global benchmark?
  - If there’s a resurgence in conventional oil production, how will the derivatives markets respond?
Staff Contributors

Christopher Goodenow
Market Analyst, Market Intelligence Branch, DMO
Office: (202) 418-5896
Email: cgoodenow@cftc.gov

Mark Valavanis
Market Analyst, Market Intelligence Branch, DMO
Office: (202) 418-6243
Email: mvalavanis@cftc.gov

Rahul Varma
Associate Director, Market Intelligence Branch, DMO
Office: (202) 418-5353
Email: rvarma@cftc.gov